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# PATENT COOPERATION TREATY

From the INTERNATIONAL BUREAU

**PCT**

## NOTIFICATION OF ELECTION

(PCT Rule 61.2)

To:

United States Patent and Trademark  
Office  
(Box PCT)  
Crystal Plaza 2  
Washington, DC 20231  
ÉTATS-UNIS D'AMÉRIQUE

in its capacity as elected Office

<b>Date of mailing (day/month/year)</b> 10 June 1999 (10.06.99)	<b>Applicant's or agent's file reference</b> 98C008-PCT
<b>International application No.</b> PCT/JP98/04745	<b>Priority date (day/month/year)</b> 23 October 1997 (23.10.97)
<b>International filing date (day/month/year)</b> 20 October 1998 (20.10.98)	
<b>Applicant</b> SUZUKI, Hideo	

1. The designated Office is hereby notified of its election made:

☒ in the demand filed with the International Preliminary Examining Authority on:  
14 May 1999 (14.05.99)

☐ in a notice effecting later election filed with the International Bureau on:  
\_\_\_\_\_

2. The election ☒ was  
☐ was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

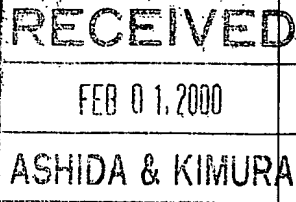
<b>The International Bureau of WIPO</b> 34, chemin des Colombettes 1211 Geneva 20, Switzerland	<b>Authorized officer</b> Sean Taylor
Facsimile No.: (41-22) 740.14.35	Telephone No.: (41-22) 338.83.38

# PATENT COOPERATION TREATY

From the  
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To:

KOMIZO, Satoshi  
10491 Patent Attorney  
7th Floor Kyohan Building, 7,  
Kandanishiki-cho 2-chome  
Chiyoda-ku, Tokyo 101  
JAPON



## PCT

NOTIFICATION OF TRANSMITTAL OF  
THE INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT  
(PCT Rule 71.1)

Date of mailing  
(day/month/year) **28. 01. 00**

Applicant's or agent's file reference  
98C008-PCT

### IMPORTANT NOTIFICATION

International application No.  
PCT/JP98/04745

International filing date (day/month/year)  
20/10/1998

Priority date (day/month/year)  
23/10/1997

Applicant  
CASIO COMPUTER CO., LTD. et al.

1. The applicant is hereby notified that this International Preliminary Examining Authority transmits herewith the international preliminary examination report and its annexes, if any, established on the international application.
2. A copy of the report and its annexes, if any, is being transmitted to the International Bureau for communication to all the elected Offices.
3. Where required by any of the elected Offices, the International Bureau will prepare an English translation of the report (but not of any annexes) and will transmit such translation to those Offices.

#### 4. REMINDER

The applicant must enter the national phase before each elected Office by performing certain acts (filing translations and paying national fees) within 30 months from the priority date (or later in some Offices) (Article 39(1)) (see also the reminder sent by the International Bureau with Form PCT/IB/301).

Where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report. It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned.

For further details on the applicable time limits and requirements of the elected Offices, see Volume II of the PCT Applicant's Guide.

Name and mailing address of the IPEA/



European Patent Office  
D-80298 Munich  
Tel: +49 89 2399 - 0 Tx: 523656 epmu d  
Fax: +49 89 2399 - 4465

Authorized officer

Koski, P

Tel. +49 89 2399-2709



The demand must be filed directly with the competent International Preliminary Examining Authority or, if two or more Authorities are competent, with the one chosen by the applicant. The full name or two-letter code of that Authority may be indicated by the applicant on the line below:

IPEA/ EP

# PCT

## CHAPTER II

### DEMAND

under Article 31 of the Patent Cooperation Treaty:

The undersigned requests that the international application specified below be the subject of international preliminary examination according to the Patent Cooperation Treaty.

For International Preliminary Examining Authority use only		
Identification of IPEA		Date of receipt of DEMAND
<b>Box No. I IDENTIFICATION OF THE INTERNATIONAL APPLICATION</b>		Applicant's or agent's file reference 98C008-PCT
International application No. PCT/JP98/04745	International filing date (day/month/year) 20/10/1998	(Earliest) Priority date (day/month/year) 23/10/1997
Title of invention CHECKING DEVICE AND RECORDING MEDIUM FOR CHECKING OPERATOR		
<b>Box No. II APPLICANT(S)</b>		
Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.)  CASIO COMPUTER CO., LTD.  6-2, Hon-machi 1-chome, Shibuya-ku, Tokyo 151-8543, JAPAN		Telephone No.:  042-579-7270
		Facsimile No.:  042-579-7708
		Teleprinter No.:
State (i.e. country) of nationality: JAPAN		State (i.e. country) of residence: JAPAN
Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.)		
State (i.e. country) of nationality:		State (i.e. country) of residence:
Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.)		
State (i.e. country) of nationality:		State (i.e. country) of residence:
<input type="checkbox"/> Further applicants are indicated on a continuation sheet.		

**Box No. III AGENT OR COMMON REPRESENTATIVE; OR ADDRESS FOR CORRESPONDENCE**The following person is ☒ agent ☐ common representativeand ☒ has been appointed earlier and represents the applicant(s) also for international preliminary examination.☐ is hereby appointed and any earlier appointment of (an) agent(s)/common representative is hereby revoked.☐ is hereby appointed, specifically for the procedure before the International Preliminary Examining Authority, in addition to the agent(s)/common representative appointed earlier.Name and address: *(Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.)*

10491 Patent Attorney KOMIZO Satoshi

7th Floor Kyohan Building, 7,  
Kandanishiki-cho 2-chome, Chiyoda-ku,  
Tokyo 101-0054, JAPAN

Telephone No.:

03-5280-2572

Facsimile No.:

03-5280-8136

Teleprinter No.:

☐ Mark this check-box where no agent or common representative is/has been appointed and the space above is used instead to indicate a special address to which correspondence should be sent.**Box No. IV STATEMENT CONCERNING AMENDMENTS**

The applicant wishes the International Preliminary Examining Authority\*

(i) ☒ to start the international preliminary examination on the basis of the international application as originally filed.(ii) ☐ to take into account the amendments under Article 34 of☐ the description (amendments attached).☐ the claims (amendments attached).☐ the drawings (amendments attached).(iii) ☐ to take into account any amendments of the claims under Article 19 filed with the International Bureau (a copy is attached).(iv) ☐ to disregard any amendments of the claims made under Article 19 and to consider them as reversed.(v) ☐ to postpone the start of the international preliminary examination until the expiration of 20 months from the priority date unless that Authority receives a copy of any amendments made under Article 19 or a notice from the applicant that he does not wish to make such amendments (Rule 69.1(d)). *(This check-box may be marked only where the time limit under Article 19 has not yet expired.)*

- \* Where no check-box is marked, international preliminary examination will start on the basis of the international application as originally filed or, where a copy of amendments to the claims under Article 19 and/or amendments of the international application under Article 34 are received by the International Preliminary Examining Authority before it has begun to draw up a written opinion or the international preliminary examination report, as so amended.

**Box No. V ELECTION OF STATES**☒ The applicant hereby elects all eligible States *(that is, all States which have been designated and which are bound by Chapter II of the PCT)* except.....*(If the applicant does not wish to elect certain eligible States, the name(s) or country code(s) of those States must be indicated above.)*

## Box No. VI CHECK LIST

The demand is accompanied by the following documents for the purposes of international preliminary examination:

- |  |   |        |
|--|---|--------|
| 1. amendments under Article 34                     |   |        |
| description  | : | sheets |
| claims   | : | sheets |
| drawings   | : | sheets |
| 2. letter accompanying amendments under Article 34 | : | sheets |
| 3. copy of amendments under Article 19             | : | sheets |
| 4. copy of statement under Article 19              | : | sheets |
| 5. other (specify):                                | : | sheets |

For International Preliminary  
Examining Authority use only

received                      not received

<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
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<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>

The demand is also accompanied by the item(s) marked below:

- |  |  |
|--|--|
| 1. <input type="checkbox"/> separate signed power of attorney            | 4. <input checked="" type="checkbox"/> fee calculation sheet |
| 2. <input checked="" type="checkbox"/> copy of general power of attorney | 5. <input type="checkbox"/> other (specify):                 |
| 3. <input type="checkbox"/> statement explaining lack of signature       |  |

## Box No. VII SIGNATURE OF APPLICANT, AGENT OR COMMON REPRESENTATIVE

Next to each signature, indicate the name of the person signing and the capacity in which the person signs (if such capacity is not obvious from reading the demand).

*Komizo Satoshi*  
KOMIZO Satoshi

For International Preliminary Examining Authority use only

1. Date of actual receipt of DEMAND:

2. Adjusted date of receipt of demand due to CORRECTIONS under Rule 60.1(b):

3. ☐ The date of receipt of the demand is AFTER the expiration of 19 months from the priority date and item 4 or 5, below, does not apply. ☐ The applicant has been informed accordingly.

4. ☐ The date of receipt of the demand is WITHIN the period of 19 months from the priority date as extended by virtue of Rule 80.5.

5. ☐ Although the date of receipt of the demand is after the expiration of 19 months from the priority date, the delay in arrival is EXCUSED pursuant to Rule 82.

For International Bureau use only

Demand received from IPEA on:

REC'D 01 FEB 2000

PCT

WIPO

PCT

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 98C008-PCT	<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/JP98/04745	International filing date (day/month/year) 20/10/1998	Priority date (day/month/year) 23/10/1997
International Patent Classification (IPC) or national classification and IPC G06F1/00		
Applicant CASIO COMPUTER CO., LTD. et al.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.



2. This REPORT consists of a total of 9 sheets, including this cover sheet.

- ☐ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☒ Certain defects in the international application
- VIII ☒ Certain observations on the international application

Date of submission of the demand  14/05/1999	Date of completion of this report  28. 01. 00
Name and mailing address of the international preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized officer  Bozas, I  Telephone No. +49 89 2399 7408 

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT**

International application No. PCT/JP98/04745

**I. Basis of the report**

1. This report has been drawn on the basis of (*substitute sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to the report since they do not contain amendments.*):

**Description, pages:**

1-14 as originally filed

**Claims, No.:**

1-15 as originally filed

**Drawings, sheets:**

1/6-6/6 as originally filed

2. The amendments have resulted in the cancellation of:

- ☐ the description, pages:  
☐ the claims, Nos.:  
☐ the drawings, sheets:

3. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)):

4. Additional observations, if necessary:



**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT**

International application No. PCT/JP98/04745

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

**1. Statement**

Novelty (N)	Yes:	Claims	2-6, 8, 10-12
	No:	Claims	1, 7, 9, 13-15
Inventive step (IS)	Yes:	Claims	
	No:	Claims	1-15
Industrial applicability (IA)	Yes:	Claims	1-15
	No:	Claims	

**2. Citations and explanations**

**see separate sheet**

**VII. Certain defects in the international application**

The following defects in the form or contents of the international application have been noted:

**see separate sheet**

**VIII. Certain observations on the international application**

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

**see separate sheet**

**Re Item V**

**Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Reference is made to the following document:

D1: EP-A-0 677 801

2. The present application does not meet the requirements of Articles 33(2) and (3) PCT, concerning novelty and inventive step, as the subject-matter of all independent claims of the international application is anticipated by the prior art teaching of D1. The reasons for this opinion are as follows:

2.1 Lack of novelty, Article 33(2) PCT:

Claim 1:

All features of independent claim 1 are known from D1 (references in parentheses refer to D1) which, using the wording of independent claim 1, discloses a **checking device for checking an operator** (col. 3, lines 34-40), **comprising storage means** (figure 1, (12)), **for storing in advance an image and a location of at least one checking point set to said image** (col. 2, lines 3-5), **display means** (figure 1, (15)), **having a display screen, for displaying said image; designation means** (figure 1, (14)), **for designating any point on the display screen of said display means** (col. 2, lines 1-13; col 3, lines 20-33) and **checking control means** (processing means, see figure 1, (11)), **for making said display means display said image stored in said storage means in order to check the operator, detecting that any point on the display screen of said display means has been designated by said designation means and determining that checking is O.K. when a location of the point designated by said designation means corresponds to the location of said at least one checking point stored in said storage means** (col. 5, lines 27-56; figure 2).

Claim 7:

All features of independent claim 7 are also known from D1 which, using the

wording of independent claim 7, discloses **a checking device for checking an operator** (col. 3, lines 34-40), **comprising:**  
**storage means** (figure 1, (12)), **for storing, in advance, images and locations of a plurality of checking points set to said images; display means** (figure 1, (15)), **having a display screen, for displaying said images; designation means** (figure 1, (14)), **for designating any points on the display screen of said display means** (col. 2, lines 1-13; col 3, lines 20-33); **and checking control means** (processing means, see figure 1, (11)), **for making said display means sequentially display said images stored in said storage means in order to check the operator, detecting that any points on the display screen of said display means have been designated by said designation means and determining that checking is O.K. when locations of the points designated by said designation means correspond to the locations of said plurality of checking points stored in said storage means** (col. 5, lines 27-56; col. 6, lines 16-21; figure 2).

Claim 9:

All features of independent claim 9 are also known from D1 which, using the wording of independent claim 9, discloses **a checking device for checking an operator** (col. 3, lines 34-40), **comprising:**  
**sequential display means** (figure 1, (15)), **for sequentially displaying display images each being associated with one of predetermined designating operations** (col. 6, lines 17-21); **designating operation means** (figure 1, (14)), **for performing designating operations with respect to said display images sequentially displayed on said sequential display means** (col. 2, lines 1-13; col 3, lines 20-33); **and determination means** (processing means, see figure 1, (11)), **for determining whether the designating operations performed by said designating operation means are appropriate, depending on whether the designating operations performed by said designating operation means correspond to said predetermined designating operations** (col. 5, lines 27-56; col. 6, lines 21-26; figure 2).

Claims 13-15:

The technical subject-matter of independent claims 13, 14 and 15 is directly equivalent to the technical subject-matter of independent claims 1, 7 and 9

respectively, which claims were shown to lack novelty here above. Accordingly, the novelty objections raised in the paragraphs above with respect to independent claims 1, 7 and 9 also apply correspondingly to independent claims 13, 14 and 15.

**2.2 Lack of inventive step, Article 33(3) PCT:**

As a direct consequence to that the subject-matter of independent claims 1, 7, 9, 13, 14, and 15 lacks novelty in view of the teaching of D1, the subject-matter of said independent claims does also not meet the requirements of Article 33(3) PCT concerning inventive step.

3. Concerning the subject-matter of the dependent claims, it also does not meet the requirements of the PCT regarding both novelty and inventive step. In particular, the following is noted concerning the respective subject-matter of dependent claims 2, 5, 6 and 8.

**Claim 2:**

The additional features of dependent claim 2 are known from D1 (col. 5, lines 30-56; figure 2).

**Claim 5:**

The additional features of dependent claim 5 are also known from D1 (col. 1, lines 50-56).

**Claim 6:**

The additional feature of dependent claim 6 relates to storing an image and the corresponding checking point(s), for each of the programs to be activated by the operator. It would be obvious to the person skilled in the art, namely when operator checking must be performed explicitly for a plurality of programs, to extend the storage means according to document D1 in a straightforward manner, to store an image and the corresponding checking point(s), for each of said to be activated programs and thus arrive to a checking device according to claim 6. Thus, the subject-matter of claim 6 does not involve an inventive step.

**Claim 8:**

The additional features of dependent claim 8 are known from D1 (col. 6, lines 16-21; col. 5, lines 30-56; figure 2).

**Re Item VII**

**Certain defects in the international application**

1. Contrary to the requirements of Rule 5.1(a)(ii) PCT, the relevant background art disclosed in document D1 has not been mentioned in the description, nor has this document been identified therein.
2. In order to comply with the requirements of Rule 6.3(b)(i) and (ii) PCT, the independent claims should have been properly cast in the two-part form using the wording "characterized by", with those features forming part of the prior art being placed in the preamble.
3. Claim 1 would read better if the sentence "detecting that any point ..." in line 10 would have been amended to read "detecting that some point ...".
4. In claim 2, line 19, the word "is" is missing and the text should have been amended by replacing "checking O.K." with "checking is O.K.".
5. In claim 6, line 19, the word "the" is missing and the text should have been amended by replacing "each of programs" with "each of the programs".
6. In claim 7, line 7, the word "the" is missing and the text should have been amended by replacing "locations of the points" with "the locations of the points". Furthermore, claim 7 would read better if the sentence "detecting that any points ..." in line 4 would have been amended to read "detecting that some points ...".
7. In claim 11, line 18, the word "means" is missing and the text should have been amended by replacing "designating operation are operations" with "designating operation means are operations".

**Re Item VIII**

**Certain observations on the international application**

1. The invention of the international application comprises three different

independent claims in the apparatus category, i.e. claims 1, 7 and 9. The various definitions of the invention given in said plurality of independent claims are such that the claims as a whole are unclear and concise, contrary to Article 6 PCT.

In view of all these alternative definitions of the invention as represented by the plurality of distinct set of technical features defined by said various independent claims, it follows that the claims as a whole are not clear and concise and leave the reader in doubt as to what are in fact the essential features of the invention and hence the primary purpose of Article 6 PCT is not satisfied. Moreover, lack of clarity arises since the plurality of independent claims makes it difficult, if not impossible, to determine the matter for which protection is sought, and places an undue burden on others seeking to establish the extent of protection.

In the present case it would have been appropriate to use a set of claims defining the relevant subject-matter in terms of a minimum number of independent claims in each category followed by dependent claims covering the features, which are merely optional, Rule 6.4 PCT. Accordingly, in the present case, only one independent claim in any one claim category should have been used.

2. Claim 1 is not clear. Specifically, it is not clear which exactly would be the location of the point designated by the designation means in the sentence "checking is O.K. when a location of the point designated by said designation means". The specific location must be uniquely defined for said designated point and therefore it cannot be "a location of the point", but should be "the location of the point". Thus, the above referenced sentence should have been amended so as to remove said lack of clarity.
3. Independent claim 7 is not clear, because it does not define all the technical features essential to the performance of the invention. In particular, in the sentence "images and locations of a plurality of checking points set to said images" (see lines 2-3 of the claim), the specific relation between the (sequentially displayed) images and the plurality of checking points is not defined. However, from the general understanding of the second embodiment of the invention as disclosed in pages 10-12 of the international application, it is clear that there is such a specific relation, in particular, a one to one correspondence

between an image and its registered coordinates (checking point), said correspondence being defined through the image location table (see figure 4a, page 10, lines 16-20). This feature is essential to the performance of the invention in solving the problem of improving security, as outlined in page 9, lines 10-16 of the international application, because it requires the operator to designate particular checking points in a specified order (in the same order that the corresponding images are displayed), making it more difficult for an unauthorised user to guess the password.

The above clarity objection applies also to independent claim 9, as said specific relation between images and designation operations (corresponding to designating checking points), although essential to the performance of the invention, is not defined in the claim (see lines 2-6). Additionally, from the wording of independent claim 9, it is also not clear when the checking device would consider the operator eligible to access the information equipment ("checking is O.K.").

Therefore, both independent claims 7 and 9 should have been amended so as to overcome said clarity objections.

5. The clarity objections raised for claims 1, 7 and 9 in the paragraphs above, also apply to independent claims 13, 14 and 15 respectively. Therefore, independent claims 13, 14 and 15 should also have been amended so as to remove said lack of clarity.

## PCT

## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference <b>98C008-PCT</b>	<b>FOR FURTHER ACTION</b> see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
International application No. <b>PCT/JP 98/ 04745</b>	International filing date (day/month/year) <b>20/10/1998</b>	(Earliest) Priority Date (day/month/year) <b>23/10/1997</b>
Applicant <b>CASIO COMPUTER CO., LTD. et al.</b>		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 3 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. ☐ **Certain claims were found unsearchable** (see Box I).

2. ☐ **Unity of invention is lacking** (see Box II).

3. ☐ The international application contains disclosure of a **nucleotide and/or amino acid sequence listing** and the international search was carried out on the basis of the sequence listing

☐ filed with the international application.

☐ furnished by the applicant separately from the international application.

☐ but not accompanied by a statement to the effect that it did not include matter going beyond the disclosure in the international application as filed.

☐ Transcribed by this Authority

4. With regard to the **title**, ☐ the text is approved as submitted by the applicant

☒ the text has been established by this Authority to read as follows:

**Checking device and recording medium for checking the identification of an operator**

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this International Search Report, submit comments to this Authority.

6. The figure of the **drawings** to be published with the abstract is:

Figure No. 1A, 1B ☐ as suggested by the applicant.

☐ None of the figures.

☐ because the applicant failed to suggest a figure.

☒ because this figure better characterizes the invention.



## INTERNATIONAL SEARCH REPORT

National Application No

JP 98/04745

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 6 G06F1/00

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 6 G06F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 0 677 801 A (AT & T CORP) 18 October 1995 see abstract; figure 4 see column 1, line 44 - column 2, line 51 see column 5, line 23 - column 6, line 32	1,2,5-9, 13-15
A	----	3,4, 10-12
A	EP 0 543 304 A (IBM) 26 May 1993 see the whole document	6,9
A	---- "MENU ICON WITH HIDDEN GEOMETRICAL PASSWORD" IBM TECHNICAL DISCLOSURE BULLETIN, vol. 32, no. 10B, 1 March 1990, page 463/464 XP000097958 see the whole document ----- -/--	6,9-12

☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

## \* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&amp;" document member of the same patent family

Date of the actual completion of the international search

26 January 1999

Date of mailing of the international search report

03/02/1999

Name and mailing address of the ISA

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## INTERNATIONAL SEARCH REPORT

International Application No.

PCT/JP 98/04745

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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# INTERNATIONAL SEARCH REPORT

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International Application No

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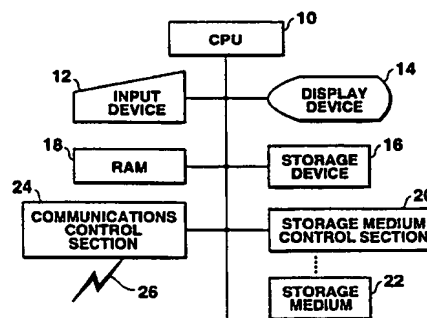
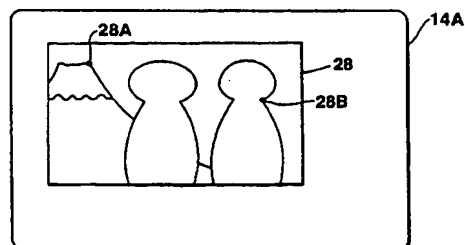
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<b>(21) International Application Number:</b> PCT/JP98/04745 <b>(22) International Filing Date:</b> 20 October 1998 (20.10.98)  <b>(30) Priority Data:</b> 9/291107                      23 October 1997 (23.10.97)                      JP  <b>(71) Applicant (for all designated States except US):</b> CASIO COMPUTER CO., LTD. [JP/JP]; 6-2, Hon-machi 1-chome, Shibuya-ku, Tokyo 151-8543 (JP).  <b>(72) Inventor; and</b> <b>(75) Inventor/Applicant (for US only):</b> SUZUKI, Hideo [JP/JP]; 10-11-302, Kitakarasuyama 3-chome, Setagaya-ku, Tokyo 157-0061 (JP).  <b>(74) Agent:</b> KOMIZO, Satoshi; Kyohan Building, 7th floor, 47, Kandnishiki-cho 2-chome, Chiyoda-ku, Tokyo 101-0054 (JP).		<b>(81) Designated States:</b> AU, CN, KR, SG, US, European patent (CH, DE, ES, FR, GB, IT, PT).  <b>Published</b> <i>With international search report.</i>

**(54) Title:** CHECKING DEVICE AND RECORDING MEDIUM FOR CHECKING THE IDENTIFICATION OF AN OPERATOR**(57) Abstract**

In order to permit checking to be performed with a simple operation, a CPU (10) displays an image on a display device (14), with reference to an image location table stored in advance in a RAM (18). When coordinates on the image are sequentially designated by an input device (12), the CPU (10) sequentially compares the locations specified by the designated coordinates with those of checking points stored in the image location table. The CPU (10) determines that checking is O.K. when errors or differences between the locations compared with each other are within an allowable range and when the order of designation of the coordinates is appropriate.

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## DESCRIPTION

Checking device and recording medium for checking the identification of an operator

### Technical Field

5 The present invention relates to a checking device for checking the operator of information equipment, and a recording medium which stores programs for working a computer as such a checking device.

### Background Art

Of late, information equipment like a personal computer, an input  
10 portable terminal, etc. has become widely used.

In general, such information equipment is designed so that users can be restricted by checking passwords, in order to prevent information from being accessed by unauthorized persons.

However, the input of passwords is troublesome. This is so  
15 especially in the case of a pen input portable terminal with no keyboard.

### Disclosure of Invention

It is accordingly an object of the present invention to facilitate an operation for checking the operator who uses information equipment.

According to one aspect of the present invention, there is provided a  
20 checking device for checking an operator, comprising:

storage means for storing in advance an image and a location of at least one checking point set to the image;

display means, having a display screen, for displaying the image;

designation means for designating any point on the display screen of  
25 the display means; and

checking control means for making the display means display the image stored in the storage means in order to check the operator (to check

whether the operator has a right to use the information equipment), detecting that any point on the display screen of the display means has been designated by the designation means, and determining that checking is O.K (i.e. the operator has a right to use the information equipment).

- 5 when a location of the point designated by the designation means corresponds to the location of the at least one checking point stored in the storage means.

According to the checking device described above, checking is performed by the simple operation of designating at least one checking  
10 point on the image. In the case of the input of a password, there is the great risk that a person who is unauthorized to use the pen input portable terminal can easily guess the password from the motions of the user's hands or the touch pen at the time of the input of the password. However, the present invention does not entail such a risk, since the location of any  
15 point designated on the image is checked. If mere coordinates on the display screen which is not displaying such an image are to be designated, there will be the great possibility that the user may forget where they are. In the present invention, however, since the checking point as registered is a point on the image, the user can easily remember its location and  
20 therefore can easily designate it.

According to the present invention, a plurality of images may be displayed sequentially. In this case, checking is performed by the simple operation of designating a checking point on each of the images displayed sequentially. In the case of the input of a password, there is the great risk  
25 that a person who is unauthorized to use the pen input portable terminal can easily guess the password from the motions of the user's hands or the touch pen at the time of the input of the password. In the present invention, however, the locations of any points designated on the images

are checked. Therefore, the present invention does not entail such a risk. If mere coordinates on the display screen which is not displaying such an image are to be designated, there will be the great possibility that the user may forget where they are. In the present invention, however, since the 5 checking points as registered are points on the images, the user can easily remember their locations, and therefore can easily designate them.

Furthermore, according to the present invention, checking may be performed by the simple operation of selecting and designating a plurality of images which are displayed sequentially. In the case of the input of a 10 password, there is the great risk that a person who is unauthorized to use the pen input portable terminal can easily guess the password from the motions of the user's hands or the touch pen at the time of the input of the password. The present invention does not entail such a risk, since checking is performed by selecting and designating the sequentially 15 displayed images. If mere coordinates on the display screen which is not displaying such an image, there will be the great possibility that the user may forget where they are. The present invention does not have such a possibility, because the sequentially displayed images need only be selected and designated.

## 20 Brief Description of Drawings

Fig. 1A is a block diagram illustrating the structure of the pen input portable terminal which employs a checking device according to the first embodiment of the present invention;

Fig. 1B is a diagram, illustrating a display screen, for explaining 25 operations according to the first embodiment of the present invention;

Fig. 2 is a flowchart for explaining how the pen input portable terminal which employs the checking device of the first embodiment of the present invention operates;



Fig. 3A is a diagram showing a correspondence between an event and an image;

Fig. 3B is a diagram which illustrates an image location table;

Fig. 3C is a diagram for explaining a relationship between the size of  
5 an image and a checking point on the image;

Fig. 3D is a diagram for explaining the location of the image origin;

Fig. 4A is a diagram which illustrates an image location table according to the second embodiment of the present invention;

Fig. 4B is a diagram, illustrating the display screen, for explaining  
10 operations according to the second embodiment of the present invention;

Fig. 4C is a diagram which illustrates a check window table provided for each application in the third embodiment of the present invention;

Fig. 5 is a flowchart for explaining how the pen input portable terminal which employs a checking device according to the second embodiment of  
15 the present invention operates;

Fig. 6A is a diagram, illustrating variations of the display screen, for explaining operations according to the third embodiment of the present invention; and

Fig. 6B is a flowchart for explaining how the pen input portable terminal  
20 which employs a checking device according to the third embodiment of the present invention operates.

## Best Mode for Carrying Out the Invention

### First Embodiment

Fig. 1A is a diagram showing the structure of the pen input portable  
25 terminal employing the checking device according to the first embodiment of the present invention. In the illustration, reference numeral 10 denotes a CPU serving as a control section which controls the entirety of the pen input portable terminal. Reference numeral 12 represents an input

device which includes a touch panel, a touch pen, etc. The touch panel is arranged at the display screen of a display device 14 such as an LCD display, for example. Reference numeral 16 denotes a storage device like a hard disk, a ROM or the like which stores images to be displayed, for example. Reference numeral 18 represents a RAM storing an image location table to be described later.

Reference numeral 20 denotes a storage medium control section which controls the storing and reading of data in and from a storage medium 22 such as a loaded floppy disk, an optical (magnetic) disk or the like. Reference numeral 24 represents a communications control section which transfers and receives data to and from an external device through a communications line 26 (which may be a cable or radio waves).

Processing programs and data, etc., which the CPU 10 executes to work as the checking device, are stored in the storage device 16 or the storage medium 22 in advance. Needless to say, however, they may not be in the storage device 16 or the storage medium 22, and may be received from any other device connected to the communications line 26 or the like, and then may be stored (in a non-illustrated work memory provided in the RAM 18, for example). Alternatively, any other device connected to the communications line 26 or the like may include a storage unit or a storage medium, and the programs and data stored therein may be transferred therefrom through the communications line 26.

Operations according to the above-described structure will now be described.

According to the checking device of the first embodiment, as illustrated in Fig. 1B, the display screen 14A of the display device 14 displays an image 28 preset and stored in advance. When any points on the image 28 are designated by the touch pen of the input device 12, the checking

device determines whether the locations of the designated points coincide with those of points 28A and 28B preset and stored in advance, thereby determining whether checking is O.K. or N.G.

Fig. 2 is a flowchart showing such procedures. Either the storage  
5 device 16 or the storage medium 22 stores programs for realizing the individual functions shown in the above flowchart, in the form of program codes readable by the CPU 10.

Fig. 3A illustrates a table which a user has preset and stored in the RAM 18 in advance. This table lists a plurality of events (the activation of  
10 the pen input portable terminal and the activation of a specific application) and images (images A and B) in association with each other. First, the CPU 10 selects one of the images which corresponds to the current event from the table of Fig. 3A (step S10). After this, the CPU 10 sets the initial value "1" in both a rank register and an image ratio register, which are  
15 included in the CPU 10 or the RAM 18 (step S12).

The user can select one or more checking points on each image (A and B) and store their locations beforehand in the image location table stored in the RAM 18 and illustrated in Fig. 3B. The value set in the rank register indicates the order of designation of the checking points. As  
20 seen from Fig. 3B, the image location table stores, in association with each checking point, its location on the corresponding image and its rank in the designation order. The checking points' locations on the image are not relative coordinates from the origin (0, 0) which is located at the left corner of the image as shown in Fig. 3C (the relative coordinates of the  
25 checking point which is first in rank is (w1, h1), for example), but the "ratio positions" which are expressed in the ratio of the relative coordinates from the origin (0, 0) to the dimensions, i.e., the width WA (or WB) and height HA (or HB) of the image. This is because the scale of such an image can

be freely increased or reduced. If the image scale is increased or reduced, variations will occur also in the points' locations (relative coordinates) from the origin. The ratio positions are adopted in view of such a possible change in the image scale. The value set in the image ratio register indicates the display scale of a selected image.

After the selection of the image and the initialization of each register, the CPU 10 makes the display device 14 display the selected image so as to begin from the image origin and on the scale represented by the value set in the image ratio register (step S14). The coordinates of the image origin are those from the display coordinates origin located at the upper left corner of the display screen 14A, and may be preset, prestored coordinates or may be randomly occurring coordinates.

Then the CPU 10 determines whether inputs have been made with the touch pen of the input device 12 (step S16). When the CPU 10 determines whether no inputs have been made, it updates the coordinates of the image origin, and alters the value set in the image ratio register (step S18), after which the CPU 10 returns to the step S14. As a result, the position and size of the image vary as shown by broken lines in Fig. 3D.

When the CPU 10 determines that inputs have been made with the touch pen, it attains the coordinates of the points designated by the touch pen (step S20), and derives the locations of the designated points from the attained coordinates (step S22). The location of each point can be derived by subtracting the coordinates of the image origin from the point's coordinates. Then, the CPU 10 calculates the ratio positions of the designated points on the basis of the derived locations and the dimensions of the image (step S24). In the case of a point whose location is specified by (xs, ys), for example, its ratio position is (xs/WA, ys/HA). Having thus

calculated the ratio positions of the designated points, the CPU 10 compares the calculated ratio positions with those stored in the image location table and corresponding in rank to the calculated ratio positions (step S26), and determines whether any errors or differences between the 5 ratio positions as compared with each other are within a predetermined allowable range (step S28). When the CPU 10 determines that the errors are not within the allowable range, it generates an alarm and terminates processing (step S30).

When the CPU 10 determines that the errors are within the allowable 10 range, it refers to the image location table and determines whether the rank represented by the value set in the rank register is last or not (step S32). When the CPU 10 determines that the rank is not last, the CPU 10 updates (counts up) the value set in the rank register (step S34) and returns to the step S14.

15 When the CPU 10 determines that the rank is last, then it determines that checking is O.K., and activates the pen input portable terminal or the application (step S36).

Thus, an image registered in advance, not a password input screen, is displayed and it is checked whether each of the points predetermined on 20 the image has been designated by the touch pen. When it is determined that each of the predetermined points on the image has been designated by the touch pen, it is then determined that checking is O.K.

More specifically, the user selects a desired image in advance, and registers desired points on the image and their designation order in 25 advance. At the time the pen input portable terminal is initially activated upon turning on of the power, or at the time a specific application is activated, the selected image is displayed on the display screen, and the pen input portable terminal waits until any points on the displayed image

are designated by the touch pen (in this case, the display position and display size of the image are changed in order to enhance security).

When any points on the displayed image are designated by the touch pen, it is determined whether the ratio positions (not the display coordinates) and designation order of the points coincide with those registered in advance. When it is determined that the ratio positions and designation order of the points coincide with those registered in advance, it is determined that checking is O.K., and then the terminal is rendered usable.

Thus, a troublesome input of a password is unnecessary. In the case of a password, there is the great risk that a person who is unauthorized to use the pen input portable terminal can easily guess the password from the motions of the user's hands or the touch pen at the time of the input of the password. In the present invention, however, the locations of the checking points designated on the image are checked. Accordingly, the present invention does not entail such a risk.

Since the checking points are points on the image, the user can easily remember their locations (if mere coordinates on the display screen which is not displaying such an image are to be designated, there is the great possibility that the user may forget their positions).

It is preferred that the display position and display size of the image be changed every time. (This will be helpful to enhance security. If the same point is designated again and again by the touch pen, the mark of the pen may be made on the display screen, which entails the possibility that any other person can perceive the locations of the points registered in advance. If, however, the display position and display size of the image is changed every time, the locations of the points to be designated by the touch pen are not constant, with a great merit of the aforementioned

possibility being avoided.)

In the above embodiment, the ratio positions are set and stored in the image location table. Needless to say, however, the relative coordinates from the image origin can be stored therein in place of the ratio positions, if  
5 the image size is not changed.

Updating the coordinates of the image origin and altering the value set in the image ratio register are both performed in the step S18 of the above-described embodiment. However, one of them may be performed in the step S18.

## 10 Second Embodiment

The second embodiment of the present invention will now be described.

The structure of the pen input portable terminal, which employs the checking device of the second embodiment, will not be explained  
15 hereinafter, since it is the same as that of the pen input portable terminal of the first embodiment. In the second embodiment, however, the image location table stored in the RAM 18 is as illustrated in Fig. 4A. More specifically, the image location table of the second embodiment stores, in association with each image window, its display position and its registered  
20 coordinates.

Fig. 5 is a flowchart for explaining the operation of the pen input portable terminal employing the checking device of the second embodiment. The storage device 16 or the storage medium 22 stores the programs for realizing the individual functions shown in the above  
25 flowchart, in the form of the program codes readable by the CPU 10.

According to the second embodiment, the CPU 10 selects the first image (image A) from the image location table (step S40). Then, the CPU 10 makes the display device 14 display the selected image as an

image window in accordance with the corresponding display position stored in the image location table (step S42). The CPU 10 waits until any input is made with the touch pen of the input device 12 (step S44).

When the CPU 10 determines that any input has been made with the touch pen, it attains the coordinates of the point designated by the touch pen (step S46), and derives the point's location from the attained coordinates in the same manner as that of the first embodiment (step S48). Then, the CPU 10 compares the derived location with that specified by the registered coordinates which the image location table stores in association with the selected image (step S50), and determines whether an error or difference between both locations as compared with each other is within a predetermined allowable range (step S52). When the CPU 10 determines that the error is not within the allowable range, it generates an alarm and terminates processing (step S54).

15 When the CPU 10 determines that the error is within the allowable range, it refers to the image location table and determines whether the selected image is the last image or not (step S56). When the CPU 10 determines that the selected image is not the last image, the CPU 10 selects the next image (step S58), and returns to the step S42.

20 When the CPU 10 determines that the selected image is the last image, then it determines that checking is O.K., and activates the pen input portable terminal (step S60).

Thus, according to the second embodiment, a plurality of images preset and stored in advance are sequentially displayed in order to perform checking, as illustrated in Fig. 4B. When it is detected during the display of the images that any points on the display screen have been designated, the locations of the designated points are compared with those stored in advance. When the locations of the designated points



coincide with those stored in advance, it is determined that checking is O.K.

In the second embodiment, as well as in the case of the first embodiment, the display position and display size of the image window 5 can be changed every time. Needless to say, the ratio positions may be adopted in place of the registered coordinates.

### Third Embodiment

The third embodiment of the present invention will now be described.

The structure of the pen input portable terminal, which employs the 10 checking device of the third embodiment, will not be explained hereinafter, because it is the same as that of the pen input portable terminal of the first embodiment.

In the third embodiment, however, the RAM 18 stores, not the image location table, but a checking window table provided for each application, 15 as illustrated in Fig. 4C. The checking window table stores a plurality of display icons and a registered icon in association with each window.

To be specific, when activating one application, a reference is made to the corresponding checking window table, and a plurality of icons are displayed in the head window as illustrated in Fig. 6A. When one of the 20 icons displayed in the head window is selected and designated, it is determined whether the designated icon is identical with a registered one. In the case where the designated icon is identical with it, the next window (window A) is displayed. When a registered icon is designated in the last window (window G), it is determined that checking is O.K.

25 In that case, it is preferred that the icons be related in content with each other. For example, icon "a" is the image of a mountain, icon "b" is the image of an ocean, icon "c" is the image of a forest, icon "d" is the image of an island, icon "e" is the image of Mt. Everest, icon "f" is the

image of Mt. Fuji, icon "g" is the image of Mt. Kilimanjaro, and icon "h" is the image of Mt. Etna. Icon "i" is the image of Mt. Vesuvius, icon "j" is the image of Mt. Elbert, and icon "k" is the image of Mt. Cleveland.

Fig. 6B is a flowchart for explaining the above-described operation of the pen input portable terminal employing the checking device according to the third embodiment. The storage device 16 or the storage medium 22 stores the programs for realizing the individual functions shown in the above flowchart, in the form of the program codes readable by the CPU 10.

10 To be specific, according to the third embodiment, the CPU 10 selects the head window from the corresponding checking window table (step S70), and makes the display device 14 display icons in the selected window (step S72). The CPU 10 waits until any icon is designated with the touch pen of the input device 12 (step S74).

15 When any icon is designated with the touch pen, then the CPU 10 refers to the check window table and determines whether the designated icon is the registered icon which the check window table stores in association with the selected window (step S76). When the designated icon is not the registered icon, the CPU 10 generates an alarm and  
20 terminates processing (step S78).

When the designated icon is the registered icon, the CPU 10 refers to the checking window table and determines whether the currently selected window is the last window (step S80). When the currently selected window is not the last window, the CPU 10 selects the next window (step  
25 S82), and returns to the step S72.

When the currently selected window is the last window (window G), the CPU 10 determines that checking is O.K., and activates the corresponding application (step S84).

Explained in the first to third embodiments is the case where the checking device is applied to the pen input portable terminal. However, the present invention is not limited thereto, and the checking device is applicable also to any other information equipment such as a personal  
5 computer, etc.

## CLAIMS

1. A checking device for checking an operator, comprising:  
storage means (16,18) for storing in advance an image and a location  
of at least one checking point set to said image;  
5 display means (14), having a display screen, for displaying said image;  
designation means (12,14) for designating any point on the display  
screen of said display means (14); and  
checking control means (10) for making said display means (14)  
display said image stored in said storage means (16,18) in order to check  
10 the operator, detecting that any point on the display screen of said display  
means has been designated by said designation means (12,14), and  
determining that checking is O.K. when a location of the point designated  
by said designation means corresponds to the location of said at least one  
checking point stored in said storage means (16,18).
- 15 2. The checking device according to claim 1, wherein based on the  
location of the designated point on said display screen and a display  
position of said image displayed on said display means (14), said checking  
control means (10) locates the designated point on said image displayed  
on said display screen, and determines that checking O.K. when the  
20 designated point's location on said image corresponds to the location of  
said at least one checking point stored in said storage means.
3. The checking device according to claim 1, wherein said storage  
means (16,18) stores the location of said at least one checking point as  
relative coordinates on said image.

4. The checking device according to claim 1, wherein the location of said at least one checking point stored in said storage means (16,18) and the location of the designated point detected by said checking control means (10) are ratio positions each being expressed in a ratio of relative  
5 coordinates on said image to dimensions of said image.

5. The checking device according to claim 1, wherein:  
said storage means (16,18) stores locations of a plurality of checking points set to said image and a designation order in which said plurality of checking points are to be designated by said designation means (12,14);  
10 and

said checking control means (10) detects that any points on said display screen have been designated by said designation means (12,14), and determines that checking is O.K. when locations and designation order of the points designated by said designation means (12,14)  
15 correspond to the locations and designation order of said plurality of checking points stored in said storage means (16,18).

6. The checking device according to claim 1, wherein said storage means (16,18) stores said image and said at least one checking point for each of programs to be activated.

20 7. A checking device for checking an operator, comprising:  
storage means (16,18) for storing, in advance, images and locations of a plurality of checking points set to said images;  
display means (14), having a display screen, for displaying said images;  
25 designation means (12,14) for designating any points on the display

screen of said display means (14); and

checking control means (10) for making said display means (14) sequentially display said images stored in said storage means (16,18) in order to check the operator, detecting that any points on the display  
5 screen of said display means (14) have been designated by said designation means (12,14), and determining that checking is O.K. when locations of the points designated by said designation means (12,14) correspond to the locations of said plurality of checking points stored in said storage means (16,18).

10 8. The checking device according to claim 7, wherein said checking control means (10) makes said display means (14) display said images sequentially, and when said checking control means (10), while said display means (14) is displaying one of said images, detects that a point on said display screen has been designated by said designation means  
15 (12,14) and determines that the location of the designated point corresponds to the location of one of said plurality of checking points which has been set to said one image, said checking control means (10) makes said display means (14) display a next one of said images.

9. A checking device for checking an operator, comprising:  
20 sequential display means (14) for sequentially displaying display images each being associated with one of predetermined designating operations;

designating operation means (12,14) for performing designating operations with respect to said display images sequentially displayed on

18

said sequential display means (14); and

determination means (10) for determining whether the designating operations performed by said designating operation means (12,14) are appropriate, depending on whether the designating operations performed  
5 by said designating operation means (12,14) correspond to said predetermined designating operations.

10. The checking device according to claim 9, wherein:

said display images are window images;

said sequential display means (14) displays said window images in an  
10 a state of overlapping one another; and

when said determination means (10) determines that a designating operation, which said designating operation means (12,14) performs with respect to one of said window images, corresponds to one of said predetermined operations, said sequential display means (14) displays a  
15 next one of said window images.

11. The checking device according to claim 9, wherein said display images are window images, and the designating operations performed by said designating operation are operations to select and designate icons which are displayed in said window images.

20 12. The checking device according to claim 9, wherein said display images are window images, and the designating operations performed by said designating operation means (12,14) are operations to designate any points on images which are displayed in said window images.

13. A recording medium (16,20,22,24,26) having a program stored

therein, said program being readable by a computer and containing instructions to make the computer check an operator by steps of:

storing in advance an image and a location of at least one checking point set to said image;

5 displaying said image as stored;

detecting that any point on a display screen has been designated, and determining that checking is O.K. when a location of the designated point corresponds to the location of said at least one checking point as stored.

14. A recording medium (16,20,22,24,26) having a program stored  
10 therein, said program being readable by a computer and containing instructions to make the computer check an operator by steps of:

storing, in advance, images and locations of a plurality of checking points set to said images;

sequentially displaying said images as stored, detecting that any  
15 points on a display screen have been designated during a display of said window images, and determining that checking is O.K. when locations of the designated points correspond to the locations of said plurality of checking points as stored.

15. A recording medium (16,20,22,24,26) having a program stored  
20 therein, said program being readable by a computer and containing instructions to make the computer check an operator by steps of:

sequentially displaying display images each being associated with one of predetermined designating operations; and

determining whether designating operations performed with respect to  
25 said display images displayed sequentially are appropriate, depending on whether the designating operations correspond to said predetermined



designating operations.

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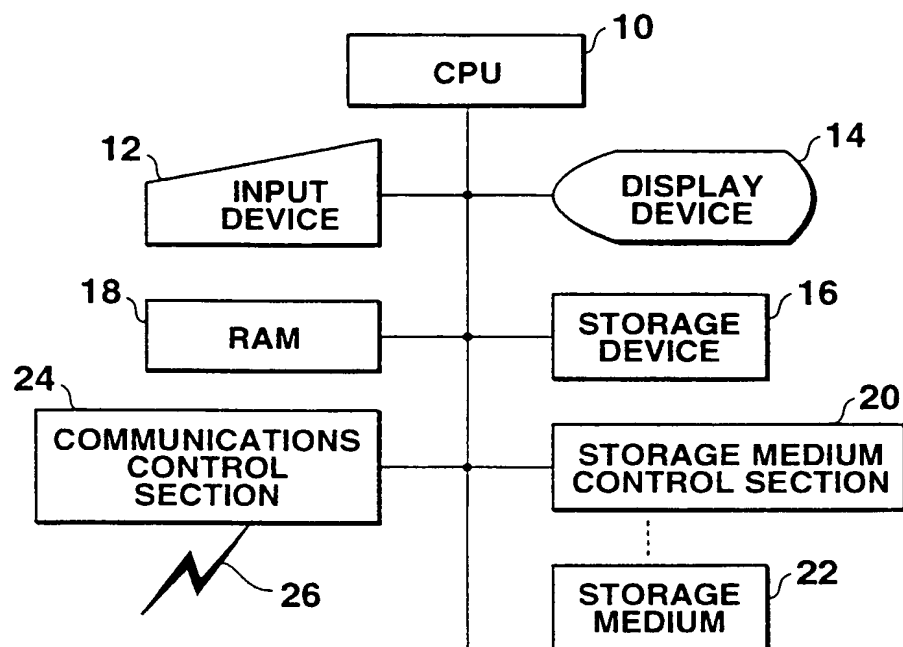


FIG.1A

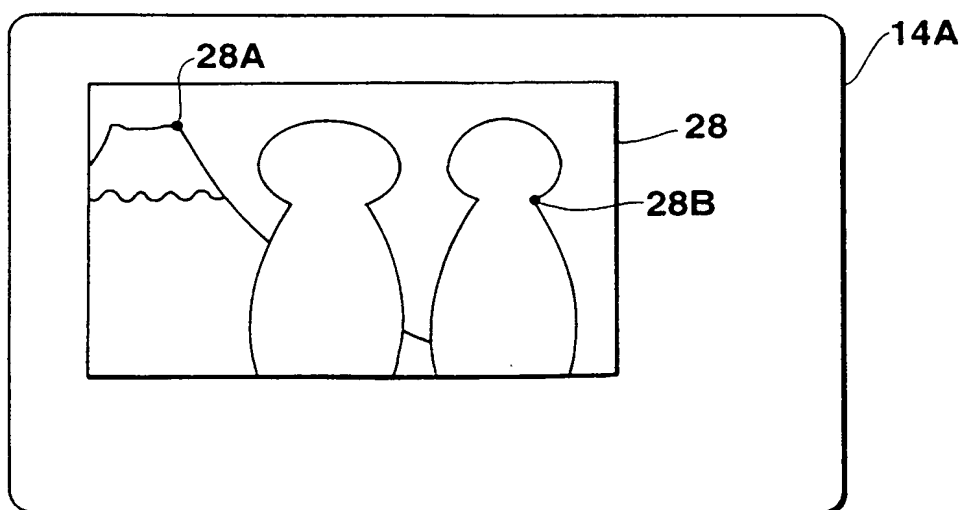


FIG.1B

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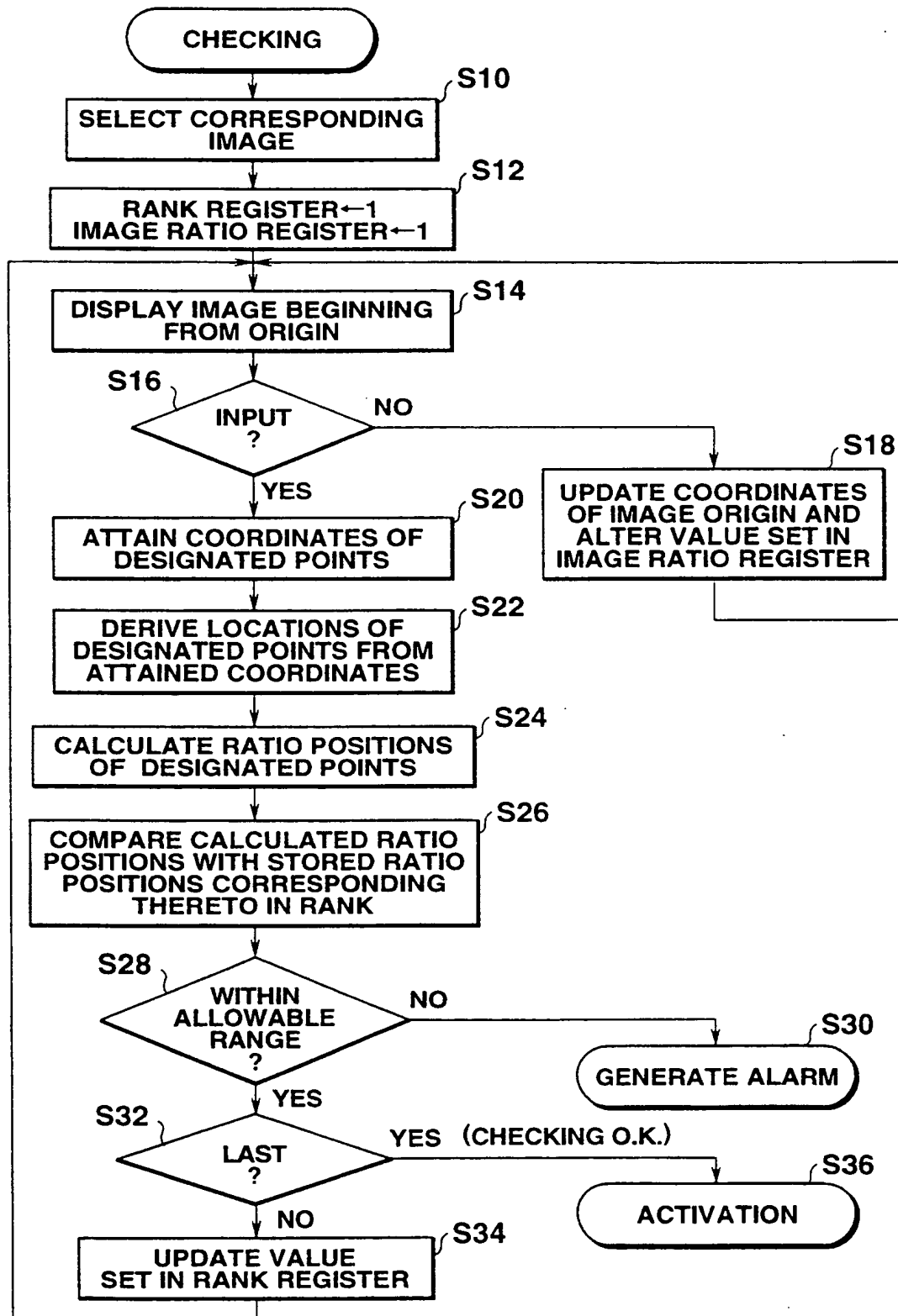


FIG.2

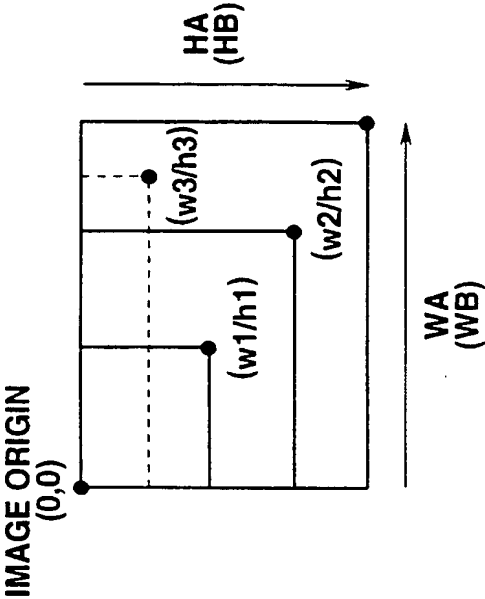


FIG.3C

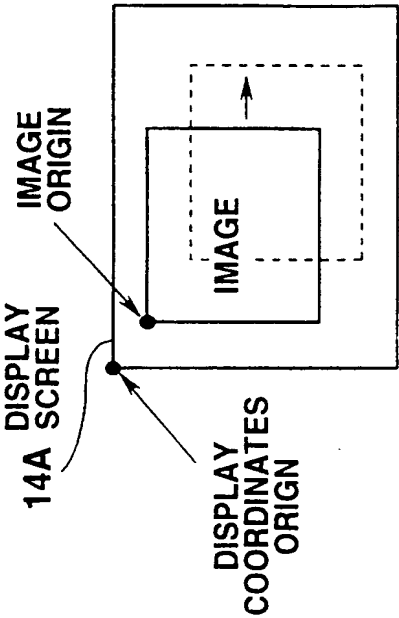


FIG.3D

ACTIVATION OF TERMINAL	IMAGE A
ACTIVATION OF SPECIFIC APPLICATION	IMAGE B

FIG.3A

RATIO POSITION		RANK
IMAGE A	$(w1/WA) (h1/HA)$	1
	$(w2/WA) (h2/HA)$	2
	$(w3/WA) (h3/HA)$	LAST
IMAGE B	$w4/WB, h4/WB$	LAST

FIG.3B

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IMAGE WINDOW	DISPLAY POSITION	REGISTERED COORDINATES
IMAGE A		
IMAGE B		
IMAGE C		

FIG.4A

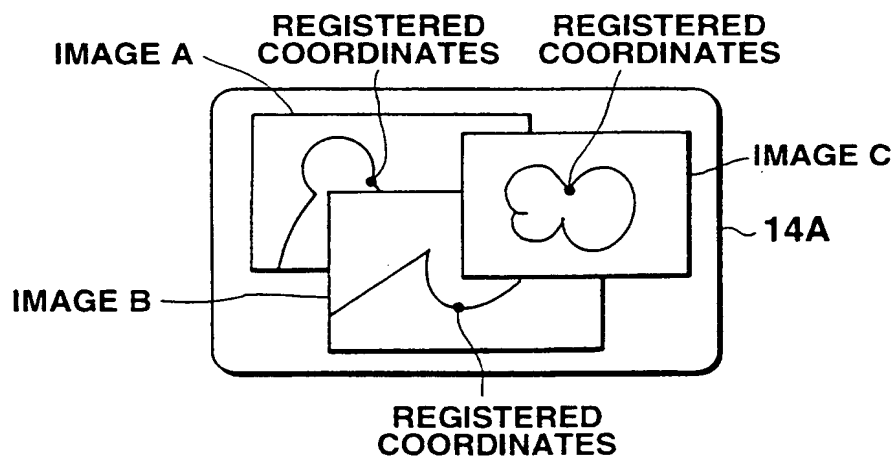


FIG.4B

NAME OF WINDOW	DISPLAY ICON	REGISTERED ICON
HEAD WINDOW	a,b,c,d	a
WINDOW A	e,f,g,h	g
WINDOW G	i, j, k	i

FIG.4C

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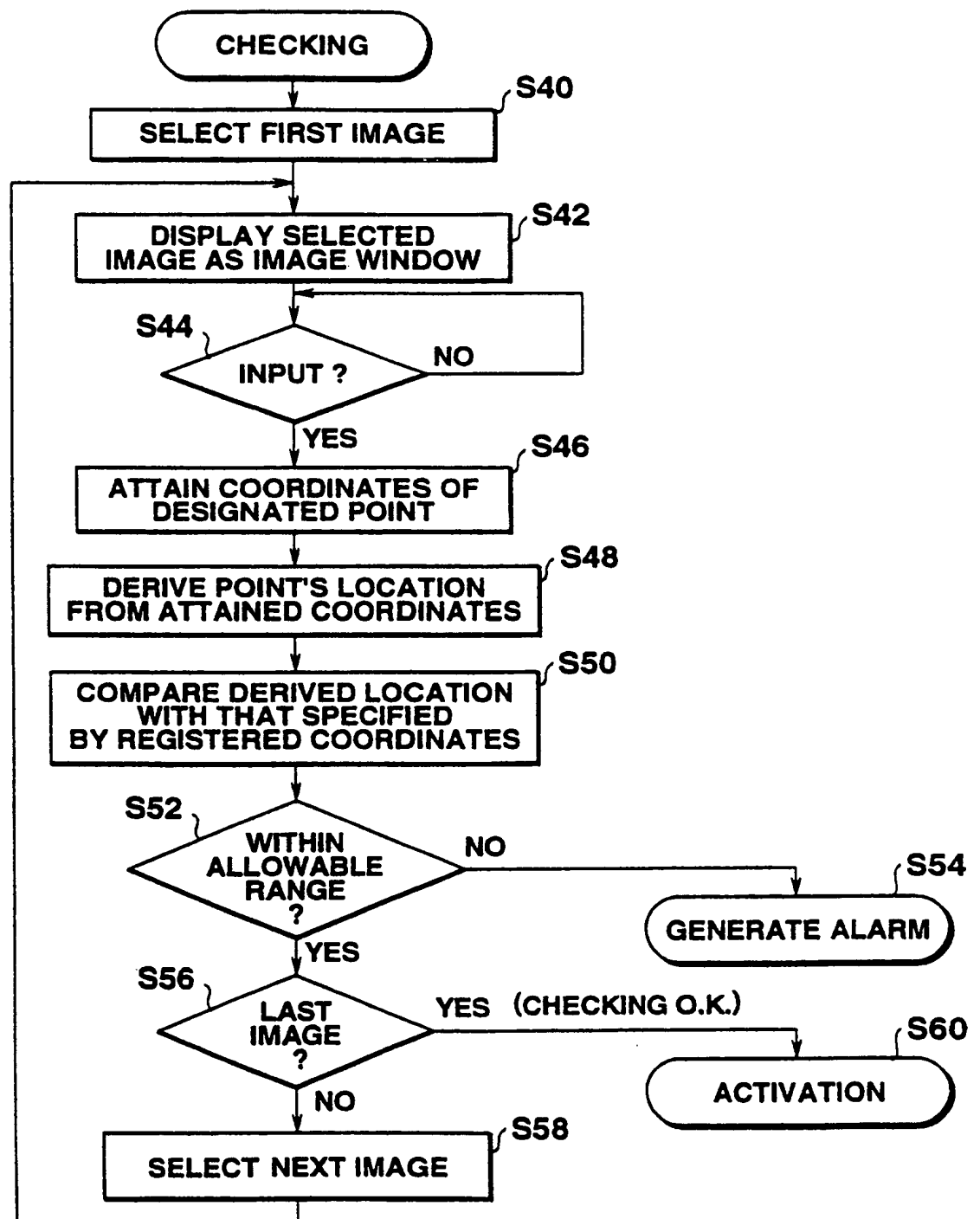


FIG.5

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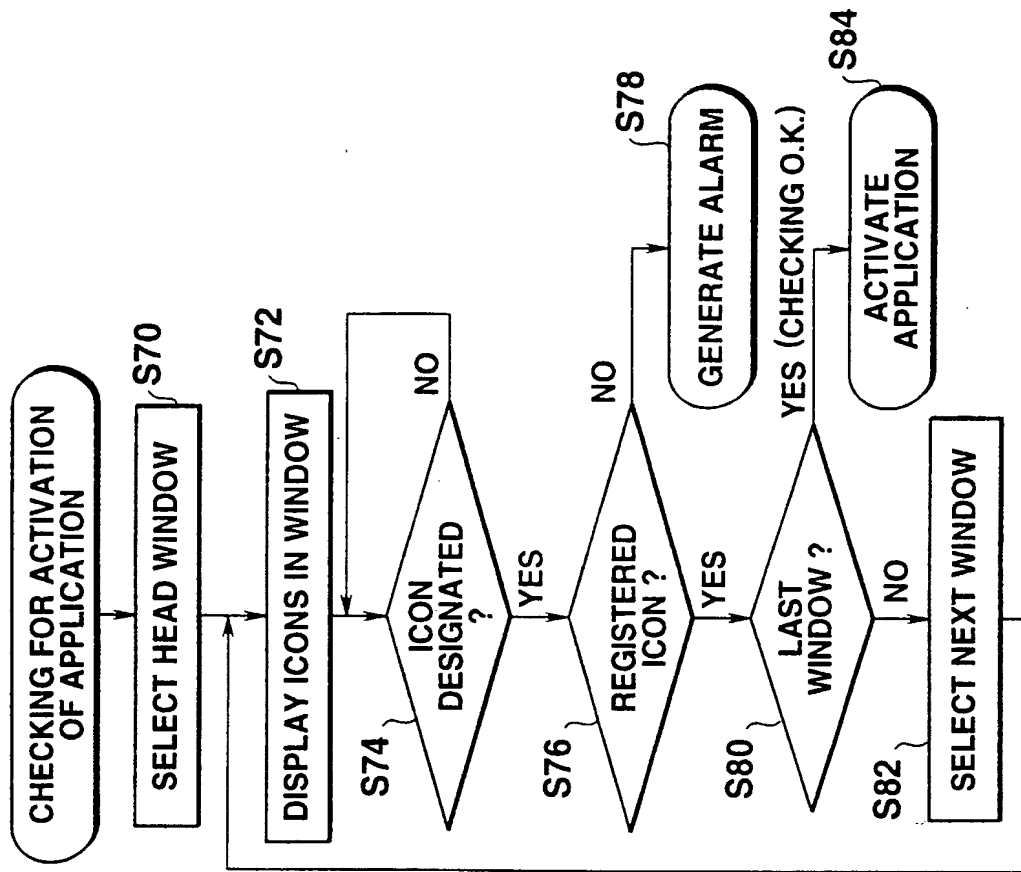


FIG.6B

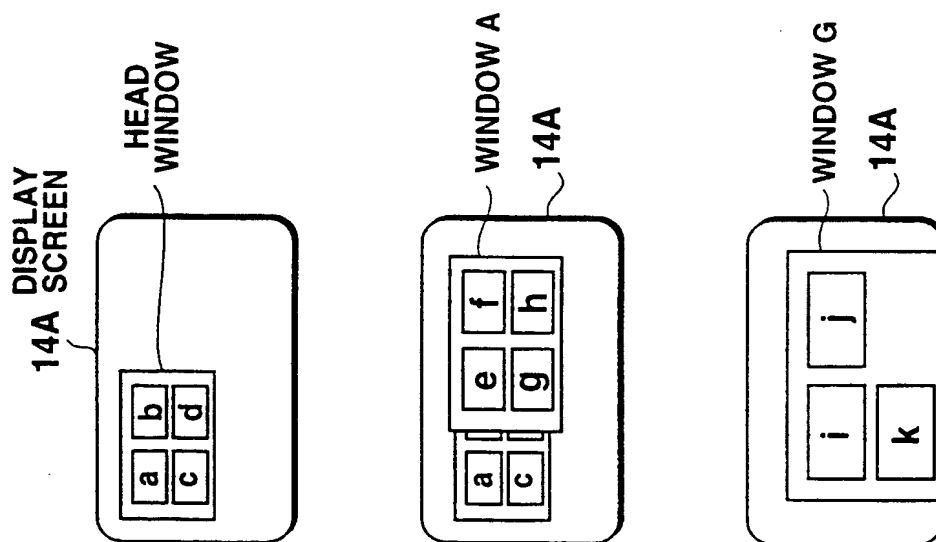


FIG.6A



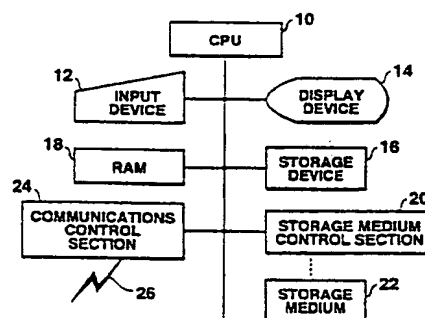
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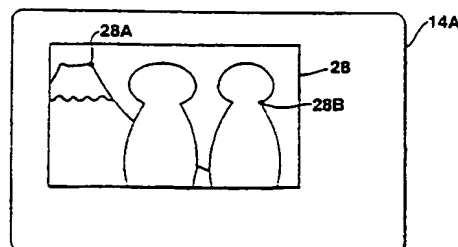
(54) Title: CHECKING DEVICE AND RECORDING MEDIUM FOR CHECKING THE IDENTIFICATION OF AN OPERATOR

## (57) Abstract

In order to permit checking to be performed with a simple operation, a CPU (10) displays an image on a display device (14), with reference to an image location table stored in advance in a RAM (18). When coordinates on the image are sequentially designated by an input device (12), the CPU (10) sequentially compares the locations specified by the designated coordinates with those of checking points stored in the image location table. The CPU (10) determines that checking is O.K. when errors or differences between the locations compared with each other are within an allowable range and when the order of designation of the coordinates is appropriate.



A



B



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